



The Penny Experiment: *More workers, less time?*

The question: how does the number of workers doing a job relate to the time it takes to do the job?

The experiment: Start with a pile of 100 pennies. Your first worker's job is to move these pennies from one side of the room to the other with a spoon. The worker can pile up the pennies in the spoon with both hands, but must carry the spoon across with one hand; if pennies are dropped, the worker must stop and pile the dropped pennies on again. (No need to start over.) Time how long it takes for your worker to move the pennies across the room. You now have the beginnings of a data table: 1 worker, that worker's time to move the pennies.

Now try the same job with two workers, and time how long it takes them to move all 100 pennies. Try three workers, four workers, etc. Keep track of these results in a data table.

The analysis: Analyze your results. You might want to graph your results, and you might also want to look for patterns in your data table.